CLAIMS

1.   A data signaling method for message-based communication between a
first communications unit (100) and a second communications unit (200), said
method comprising the steps of:

5   -   initiating said message-based inter-unit communication by
providing, in said first communications unit (100), a state (10) comprising
communications unit-associated data applicable for multiple communications
messages to be transmitted between said first communications unit (100) and
said second communications unit (200);

10   -   generating a copy of said state (10);

     -     transmitting said state copy from said first communications unit
(100) to said second communications unit (200);

     -     storing said state copy in said second communications unit (200);
and

15   -   processing a communications message (m1, m2) of said multiple
communications messages using said state (10) or said state copy by
modulating a size of said communications message (m1, m2) based on at least
a portion of said communications unit-associated data.

20   2.   The method according to claim 1, wherein said processing step comprises
the steps of:

     -     said first communications unit (100) removing at least a portion of
said communications unit-associated data in said state (10) from said
communications message (m1) to obtain a reduced-size communications
25   message (m1'USD); and

     -     said first communications unit (100) transmitting said reduced-size
communications message (m1'USD) to said second communications unit (200).

3.   The method according to claim 2, further comprising the step of said
30   second communications unit (200) adding at least a portion of said
communications unit-associated data in said state copy to said reduced-size
communications message (m1'USD) to obtain said communications message
(m1).

4.   The method according to any of the claims 1 to 3, wherein said processing step comprises the steps of:

        -    said second communications unit (200) removing at least a portion of said communications unit-associated data in said state copy from said communications message (m2) to obtain a reduced-size communications message (m2'usd); and

        -    said second communications unit (200) transmitting said reduced-size communications message (m2'usd) to said first communications unit (100).

5.   The method according to claim 4, further comprising the step of said first communications unit (100) adding at least a portion of said communications unit-associated data in said state (10) to said reduced-size communications message (m2'usd) to obtain said communications message (m2).

6.   The method according to any of the claims 1 to 5, further comprising the steps of:

        -    transmitting a first identifier (ID1) of said state copy from said first communications unit (100) to said second communications unit (200);

        -    generating a second state identifier (ID2) based on said received state copy; and

        -    comparing said received first state identifier (ID1) and said generated second state identifier (ID2), wherein said state copy is considered successfully provided if said second state identifier (ID2) corresponds to said first state identifier (ID1).

7.   The method according to any of the claims 1 to 6, wherein said storing step comprises the step of storing said state copy in a compartment (164-1) dedicated to said first communications unit (100) at said second communications unit (200).

8.   The method according to claim 7, further comprising the step of copying said state copy from said compartment (164-1) dedicated to said first

communications unit (100) at said second communications unit (200) to a locally available state memory (162) at said second communications unit (200).

5   9.   The method according to any of the claims 1 or 8, further comprising the step of storing said state (10) in a locally available state memory (162) at said first communications unit (100).

10.   The method according to any of the claims 1 to 9, wherein said inter-unit
10   communication comprises compressed message-based communication between said first (100) and second (200) communications unit, said method comprising the step of said first communications unit (100) compressing said communications message (m1) based on said state (10), and said processing step comprises the step of said second communications unit (200)
15   decompressing said compressed communications message (m1'USD) based on said state copy.

11.   The method according to any of the claims 1 to 9, wherein said inter-unit communication comprises compressed message-based communication
20   between said first (100) and second (200) communications unit, said method comprising the step of said second communications unit (200) compressing said communications message (m2) based on said state copy, and said processing step comprises the step of said first communications unit (100) decompressing said compressed communications message (m2'USD) based on
25   said state (10).

12.   The method according to claim 10 or 11, wherein said multiple communications messages (m1, m2) are compressed using a SigComp compression.

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13.   The method according to any of the claims 1 to 12, further comprising the step of said second communications unit (200) acknowledging reception of said state copy to said first communications unit (100).

14. The method according to claim 13, wherein said acknowledging step comprises the steps of:

- said second communications unit (200) receiving an acknowledge identifier (ACK) from said first communication unit (100); and

5   - said second communications unit (200) returning said acknowledge identifier (ACK) to said first communications unit (100) when said state copy is stored in said second communications unit (200).

15. The method according to claim 13, wherein said acknowledging step

10   comprises the steps of:

- said second communications unit (200) compressing a communications message (m2) intended to said first communications unit (100) using said state copy; and

- transmitting said compressed communications message (m2'USD) to

15   said first communications unit (100), wherein said first communications unit (100) is informed of successful reception of said state copy based on said received compressed message (m2'USD).

16. A communications unit (100) adapted for message-based communication

20   with an external communication unit (200), said communications unit comprising:

- means (110) for receiving a copy of a state (10) comprising communications unit-associated data applicable for multiple communications messages to be transmitted between said communications unit (100) and said

25   external communications unit (200);

- means (140) for storing said state copy; and

- means (130) for processing a communications message (m1'USD, m2) of said multiple communications messages using said stored state copy, said processing means (130) being configured for modulating a size of said

30   communications message (m1'USD) based on at least a portion of said communications unit-associated data in said state copy.

17. The communications unit according to claim 16, wherein said communications message is a reduced-size communications message (m1'usp) and processing means (130) comprises means (132) for adding at least a portion of said communications unit-associated data in said state copy to said reduced-size communications message (m1'usp).

18. The communications unit according to claim 16 or 17, wherein said processing means (130) comprises means (134) for removing at least a portion of said communications unit-associated data in said state copy from said communications message (m2).

19. The communications unit according to any of the claims 16 to 18, further comprising:

- means (110) for receiving a first identifier (ID1) of said state copy;

- means (130) for generating a second state identifier (ID2) based on said received state copy; and

- means (144) for comparing said received first state identifier (ID1) and said generated second state identifier (ID2), wherein said state copy is considered successfully provided if said second state identifier (ID2) corresponds to said first state identifier (ID1).

20. The communications unit according to claim 19, wherein said comparing means (144) is configured for generating a storing command if said second state identifier (ID2) corresponds to said first state identifier (ID1) and storing means (140) is configured for storing said state copy upon reception of said storing command.

21. The communications unit according to any of the claims 16 to 20, wherein said storing means (140) is configured for storing said state copy in a compartment (164-1) dedicated to said external communications unit (200).

22. The communications unit according to claim 21, further means (142) for copying said state copy from said compartment (164-1) dedicated to said external communications unit (200) to a locally available state memory (162).

23. The communications unit according to claim 17, further comprising a compressor (120) and decompressor (130), said adding means (132) being provided in said decompressor (130) for decompressing a received compressed communications message (m1'usd) from said external communications unit (200) by adding said at least a portion of said communications unit-associated data in said state copy to said compressed communications message (m1'usd).

24. The communications unit according to claim 18, further comprising a compressor (120) and decompressor (130), said removing means (134) being provided in said compressor (120) for compressing a communications message (m2) intended to said external communications unit (200) by removing said at least a portion of said communications unit-associated data in said state copy from said communications message (m2).

25. The communications unit according to claim 23 or 24, wherein said compressor (120) and decompressor (130) are configured for signal compression and decompression using a SigComp protocol.

26. The communications unit according to any of the claims 16 to 25, further comprising means for acknowledging reception of said state copy to said external communications unit (200).

27. The communications unit according to claim 26, wherein said acknowledging means comprises:
    -    means (110) for receiving an acknowledge identifier (ACK) from said external communication unit (200); and
    -    means (110), connected to said storing means (140), for returning said acknowledge identifier (ACK) to said external communications unit (200) when said storing means (140) has stored said state copy.

28. The communications unit according to claim 23 to 25 and 26, wherein said compressor (120) is configured for compressing a message (m2) intended to said external communications unit (200) using said state copy and said acknowledging means comprises means (110) for transmitting said

5   compressed message (m2'usd) to said external communications unit (200), wherein said external communications unit (200) acknowledges successful reception of said state copy based on said received compressed message (m2'usd).

10   29. A communications unit (100) adapted for message-based communication with an external communication unit (200), said communications unit comprising:

        -    means (142) for generating a state (10) comprising communications unit-associated data applicable for multiple communications messages to be

15   transmitted between said communications unit (100) and said external communications unit (200);

        -    means (140) for storing said state (10);

        -    means (142) for generating a copy of said state (10);

        -    means (110) for providing said state copy for storage in said external

20   communications unit (200);

        -    means (130) for processing a communications message (m1, m2'usd) of said multiple communications messages using said stored state (10), said processing means (130) being configured for modulating a size of said communications message (m1, m2'usd) based on at least a portion of said

25   communications unit-associated data in said state (10).

30. The communications unit according to claim 29, wherein said processing means (130) comprises means (134) for removing at least a portion of said communications unit-associated data in said state (10) from said

30   communications message (m1).

31. The communications unit according to claim 29 or 30, wherein said communications message is a reduced-size communications message (m2'usd)

and processing means (130) comprises means (132) for adding at least a portion of said communications unit-associated data in said state (10) to said reduced-size communications message (m2'USD).

32. The communications unit according to any of the claims 29 to 31, further comprising means (110) for announcing said provides state copy to said external communications unit (200), said announcing means (110) being configured for transmitting an identifier (ID1) of said state copy to said external communications unit (200).

33. The communications unit according to claim 30, further comprising a compressor (120) and decompressor (130), said removing means (134) being provided in said compressor (120) for compressing a communications message (m1) intended to said external communications unit (200) by removing said at least a portion of said communications unit-associated data in said state from said communications message (m1).

34. The communications unit according to claim 31, further comprising a compressor (120) and decompressor (130), said adding means (132) being provided in said decompressor (130) for decompressing a received compressed communications message (m2'USD) from said external communications unit (200) by adding said at least a portion of said communications unit-associated data in said state (10) to said compressed communications message (m2'USD).